Anderson et al. Serial No.: 10/050,847 Page 2 of 9

AMENDMENTS TO THE CLAIMS;

Dec 08-04 08:37p

This listing of claims will replace all prior versions and listing of the claims in the application:

LISTING OF THE CLAIMS:

Claims 1-60. (canceled)

- Claim 61. (currently amended) A method of identifying a microorganism in a biological sample, wherein said method comprises the steps of:
- (a) concentrating said microorganism by i) adding a sample containing said microorganism to an ultracentrifuge tube and ii) centrifuging said sample in said tube to concentrate said microorganism, said ultracentrifuge tube comprising an upper region, a middle region and a lower region, wherein an inner diameter of said upper region is larger than an inner diameter of said lower region, wherein said upper region is separated from said lower region by said middle region having a decreasing diameter from said upper region toward said lower region and wherein said lower region has a closed bottom; and
- (b) incubating with antibodies specific for known microorganisms, wherein if said antibodies bind to said concentrated microorganism then said microorganism is identified as the microorganism to which the antibodies are known to bind, by their fluorescence.

Claims 62 and 63. (canceled)

Claim 64. (currently amended) The method of claim 61, wherein said fluorescent antibodies are fluorescently labeled and are present in said upper region of said centrifuge tube during centrifugation of said biological sample, attach to the microorganism for which they are specific during incubation, cosediment and coband with said

Anderson et al. Serial No.: 10/050,847 Page 3 of 9

microorganism, and are detected by the fluorescence of said an antibody-microorganism conjugate band.

LSP Accounting

The method of claim 64, wherein a plurality of species Claim 65. (original) of antibody is present in said upper region of said centrifuge tube during centrifugation of said biological sample and wherein each species of antibody is labeled with a marker distinct from any marker on any other species of antibody present in said upper region.

(currently amended) The method of claim 61, in which the an Claim 66. antibody microorganism complex has a banding density different from that of the free microorganism, thus allowing the presence of the complex to be detected.

- (currently amended) A method of identifying a microorganism in a Claim 67. biological sample, wherein said method comprises the steps of:
- (a) concentrating said microorganism by i) adding a sample containing said microorganism to an ultracentrifuge tube and ii) centrifuging said sample in said tube to concentrate said microorganism, said ultracentrifuge tube comprising an upper region, a middle region and a lower region wherein an inner diameter of said upper region is larger than an inner diameter of said middle region, wherein (i) an inner diameter of said middle region is larger than an inner diameter of said lower region or (ii) the inner diameter of said middle region is the same as the inner diameter of said lower region, wherein that inner diameter is small enough to trap an air bubble between two layers of aqueous liquid such that the air bubble will keep said two layers of aqueous liquid separate so long as said centrifuge tube is at rest, and wherein said lower region has a closed bottom; and
- (b) incubating with antibodies specific for known microorganisms, wherein if said antibodies bind to said concentrated microorganism then said microorganism is identified as the microorganism to which the antibodies are known to bind, by their fluorescence.

Dec 08-04 08:37p

Anderson et al. Serial No.: 10/050,847 Page 4 of 9

- (currently amended) The method of claim 67, wherein said Claim 68. fluorescent antibodies are fluorescently labeled and are present in said upper region of said centrifuge tube during centrifugation of said biological sample, attach to the microorganism for which they are specific during incubation, cosediment and coband with said microorganism, and are detected by the fluorescence of said an antibody-microorganism conjugate band.
- The method of claim 68, wherein a plurality of species Claim 69. (original) of antibody is present in said upper region of said centrifuge tube during centrifugation of said biological sample and wherein each species of antibody is labeled with a marker distinct from any marker on any other species of antibody present in said upper region.
- (currently amended) The method of claim 67, in which the an Claim 70. antibody microorganism complex has a banding density different from that of the free microorganism, thus allowing the presence of the complex to be detected.
- (currently amended) A method of identifying a microorganism in a Claim 71. biological sample, wherein said method comprises the steps of:
- (a) concentrating said microorganism by i) adding a sample containing said microorganism to an ultracentrifuge tube and ii) centrifuging said sample in said tube to concentrate said microorganism, said ultracentrifuge tube comprising an upper region, a middle region and a lower region, wherein said centrifuge tube comprises a linearly continuous inner surface at least partially defined by said upper, middle and lower regions, wherein an inner diameter of said upper region is larger than an inner diameter of said middle region and wherein an inner diameter of said middle region is larger than an inner diameter of said lower region and wherein said lower region has a closed bottom; and

Anderson et al. Serial No.: 10/050,847 Page 5 of 9

(b) incubating with antibodies specific for known microorganisms, wherein if said antibodies bind to said concentrated microorganism then said microorganism is identified as the microorganism to which the antibodies are known to bind, by their fluorescence.

Claims 72 and 73. (canceled)

- Claim 74. (currently amended) The method of claim 71, wherein said fluorescent antibodies are fluorescently labeled and are present in said upper region of said centrifuge tube during centrifugation of said biological sample, attach to the microorganism for which they are specific during incubation, cosediment and coband with said microorganism, and are detected by the fluorescence of said an antibody-microorganism conjugate band.
- Claim 75. (original) The method of claim 74, wherein a plurality of species of antibody is present in said upper region of said centrifuge tube during centrifugation of said biological sample and wherein each species of antibody is labeled with a marker distinct from any marker on any other species of antibody present in said upper region.
- Claim 76. (currently amended) The method of claim 71, in which the an antibody microorganism complex has a banding density different from that of the free microorganism, thus allowing the presence of the complex to be detected.
- Claim 77. (currently amended) A method of identifying a microorganism in a biological sample, wherein said method comprises the steps of:
- (a) concentrating said microorganism by i) adding a sample containing said microorganism to an ultracentrifuge tube and ii) centrifuging said sample in said tube to concentrate said microorganism, said ultracentrifuge tube comprising an upper region, a

Anderson et al. Serial No.: 10/050,847 Page 6 of 9

middle region and a lower region wherein an inner diameter of said upper region is larger than an inner diameter of said middle region and wherein an inner diameter of said middle region is larger than an inner diameter of said lower region, wherein said upper region is separated from said middle region by a first tapering region having a decreasing diameter from said upper region toward said middle region, and said middle region is separated from said lower region by a second tapering region having a decreasing diameter from said middle region toward said lower region; and

(b) incubating with antibodies specific for known microorganisms, wherein if said antibodies bind to said concentrated microorganism then said microorganism is identified as the microorganism to which the antibodies are known to bind, by their fluorescence.

Claims 78 and 79. (canceled)

Claim 80. (currently amended) The method of claim 77, wherein said fluorescent-antibodies are fluorescently labeled and are present in said upper region of said centrifuge tube during centrifugation of said biological sample, attach to the microorganism for which they are specific during incubation, cosediment and coband with said microorganism, and are detected by the fluorescence of said an antibody-microorganism conjugate band.

Claim 81. (original) The method of claim 80, wherein a plurality of species of antibody is present in said upper region of said centrifuge tube during centrifugation of said biological sample and wherein each species of antibody is labeled with a marker distinct from any marker on any other species of antibody present in said upper region.

Claim 82. (currently amended) The method of claim 77, in which the an antibody microorganism complex has a banding density different from that of the free microorganism, thus allowing the presence of the complex to be detected.